REMARKS

This is in response to the Official Action of July 15, 2004, which rejected claims 1-5, all the claims pending in the application.

The Official Action was made final.

The claims were rejected under 35 U.S.C. 103(a) as being unpatentable over Scruggs, U.S. Patent No. 4,484,750 in view of Herd, U.S. Patent No. 4,340,204.

In column 1 of Scruggs, it says:

"BACKGROUND ART"

On pipe joints, valves, housing enclosures and like structures subjected to heat and high pressure fluid conditions, it may be important that the fluid be kept from leaking from the joint and in the event of leakage, that means be provided for quick, easy and effective repair of the leaking joint. For example, repair of leaking joints in the steam pipes of a power plant presently may require time consuming disassembly to replace seal material to correct leakage at the joint."

Further along column 1 of Scruggs, it says:

"DISCLOSURE OF THE INVENTION

The present invention contemplates a high pressure seal joint utilizing a meltable seal material between first and second members in the joint to reform the seal between the members in situ without loss of the seal material from the joint regardless of the orientation of the seal material relative to horizontal."

In column 2 of Scruggs, it says, starting at line 10:

"For example, a joint 13 of the present type may be used to connect abutting

ends of steampipes in a nuclear reactor or in attaching a valve housing to a pipe or any other construction where the loss of a seal in the joint may otherwise require extensive, time-consuming disassembly procedures to be followed in order to correct the leakage."

On page 1 of Scruggs, the ABSTRACT says:

"ABSTRACT

A joint includes two members with facing surface sections sealed together by a meltable seal material contained within a reservoir between the surface sections. A non-capillary recess in one of the members adjacent one surface section keeps the seal material from flowing out of the reservoir between the members by capillary action when the seal material is melted to form or reform the seal between the members."

In the Official Action of 7/15/2004, page 2, paragraph 5, it says: "There is a soft ring (12) positioned in the peripheral grooves (16) of the inlet seal member (11) opposite the raised metal seal ring (40) of the injection port member (10)." However, this quote does not mention the fact that the ring (12) is of "meltable seal material" which distinguishes quite markedly from the invention of the present application which does not have a seal of meltable seal material.

On page 3, of the Official Action, it says: "10 Scruggs does not disclose the soft ring being formed of plastic. Herd discloses the use of soft plastic in order to provide a seal ring that deforms without disintegration (col. 7, lines 24-25)."

Herd discloses a high pressure gate valve with preloaded, stacked, solid lubricated stem seals. Herd, at column 2, starting at line 9, describes the primary

design requirement for a high pressure valve stem packing as follows:

"The primary design requirement for a high pressure valve stem packing is to seal, bubble-tight, gas with a high percentage of H_2S at 25,000 psi (172 MPa) working pressure at 300° Fahrenheit (149° Centigrade) with hydrostatic test pressure at, for example, 37,500 psi (259 MPa). Additional design requirements are low friction, low maintenance, and a long service life. The preferred design for the valve stuffing box would allow application of the seal to balanced or unbalanced stem, rising or non-rising stem valves and would be as short as possible. The stem packing cycle life is important and should be relatively high, such as, for example, 300 cycles without leakage. A cycle is defined as the stem movement to first open a gate valve and then close the valve. The 300-cycle number is, for example, based on operation of a valve once per week for approximately six years. Designs which did not rely on extended neck bonnets or air cooling fins to lower the packing temperature are also desirable."

Applicant's invention relates to chromatography, and more particularly concerns a new inlet seal assembly and method for use with gas chromatography instruments This is quite different from Scruggs field of steam pipes of a power plant where the repair of leaking joints in the steam pipes may require time consuming disassembly to replace seal material to correct leakage at the joint.

This is also far removed from Herd's field of stem gate valves in oil field valves.

The Examiner suggests replacing the meltable metal seal material (12) of Scruggs with the non-meltable material of Herd. But this would defeat the purpose of

Scruggs and prevent Scruggs from replacing a leaking seal from the outside without disassembly by merely reheating the meltable seal material. To substitute the seal material of Herd for the seal material of Scruggs would require disassembly of the modified Scruggs seal assembly to open up the seal and remove the leaking seal material and replace it with like material.

Rejection of the claims on the basis of Scruggs U.S. Patent No. 4,484,750 in view of Herd, U.S. Patent No. 4,340,204 is in error because both of these references are from nonanalogous arts. The references are improperly combined. These references are neither in the same field of endeavor as the inventor's endeavor, nor were they reasonably pertinent to the particular problem which the inventor was involved. In re Clay, 23 U.S.P.Q. 2d 1058, 1060 (Fed.Cir. 1992). Further, the combining of Scruggs and Herd is also improper because it makes Scruggs inoperable for its intended purpose of resealing his valve without taking the valve apart, thus requiring time consuming disassembly to replace the seal material and to correct leakage in the valve.

The proposed modification is also improper under MPEP Section 2143.01 which says:

"THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTROY FOR ITS INTENDED PURPOSE

If the proposed modification would render the prior are invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) (Claimed device was a blood filter assembly for use

during medical procedures wherein both the inlet and outlet for the blood were located at the bottom end of the filter assembly, and wherein a gas vent was present at the top of the filter assembly. The prior are reference taught a liquid strainer for removing dirt and water from gasoline and other light oils wherein the inlet and outlet were at the top of the device, and wherein a pet-cock (stopcock) was located at the bottom of the device for periodically removing the collected dirt and water. The reference further taught that the separation is assisted by gravity. The Board concluded the claims were *prima facie* obvious, reasoning that it would have been obvious to turn the reference device upside down. The court reversed, finding that if the prior art device was turned upside down it would be inoperable for its intended purpose because the gasoline to be filtered would be trapped at the top, the water and heavier oils sought to be separated would flow out of the outlet instead of the purified gasoline, and the screen would become clogged.)."

MPEP Section 2143.01 further says:

"**THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE**

If the proposed motivation or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (Claims were directed to an oil seal comprising a bore engaging portion with outwardly biased resilient spring fingers inserted in a resilient sealing member. The primary reference relied upon in a rejection based on a combination of references disclosed an oil seal wherein the bore

engaging portion was reinforced by a cylindrical sheet metal casing. Patentee taught the device required rigidity for operation, whereas the claimed invention required resiliency. the court reversed the rejection holding the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.).

There is no motivation in Scruggs, or in Herd, or in the combination of the two references to substitute the seal rings 213 of Herd which are of Teflon, Molly-Teflon, Grafoil and the like for the meltable seals in Scruggs because that would destroy the Scruggs purpose for providing a meltable seal ring that is repaired without taking the valve apart, and avoids the time delay that that would require.

The abstract of the Scruggs patent is as follows:

"ABSTRACT

"A joint includes two members with facing surface sections sealed together by a meltable seal material contained within a reservoir between the surface sections. A non-capillary recess in one of the members adjacent one surface section keeps the seal material from flowing out of the reservoir between the members by capillary action when the seal material is melted to form or reform the seal between the members."

The claims have been amended in accordance with the enclosed listing of claims.

In applicant's amended claim 1, the amendment includes a chromatographic

instrument,

an injection port member in the chromatographic instrument.

Amended claim 4 includes providing a gas chromatography instrument,

providing an injection port member in the gas chromatography instrument

In claim 5 amended, the words "using the injection assembly by" have been deleted.

A LIST OF CLAIMS is attached hereto.

If necessary, an appropriate extension of time to respond is respectfully requested.

The Commissioner is authorized to charge any additional fees which may be required to Patent Office Deposit Account No. 05-0208.

Respectfully submitted,
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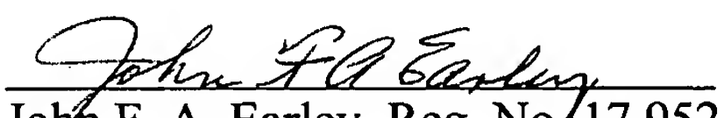

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